

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
BOTCORP AMERICA)	File No. SES-LIC-19990120-00124
)	
For Blanket Authorization to operate up to)	
25,000 full-duplex mobile earth terminals)	
through Canadian-licensed satellite MSAT-1)	
and U.S.-licensed satellite AMSC-1)	
at 1646.5-1660.5 MHz (transmit) and)	
1545-1559 MHz (receive) throughout the)	
Continental United States, United States Territories,)	
Alaska, and Hawaii)	

ORDER AND AUTHORIZATION

Adopted: January 23, 2002

Released: January 25, 2002

By the Chief, Satellite and Radiocommunication Division:

I. Introduction

1. By this Order, we grant BotCorp America (BotCorp) blanket authority, subject to certain conditions, to operate mobile earth terminals (METs), on a non-interference basis, to provide mobile satellite service (MSS) in the United States via both a Canadian-licensed satellite and a U.S. licensed satellite, each operating in portions of the L-band spectrum.¹ Grant of this application will facilitate increased competition in the MSS market, providing U.S. consumers and users, including federal and state governments and agencies, businesses and individual consumers with additional service options as well as other benefits of competition such as lower prices, innovation, and improved service.

II. Background

2. On January 20, 1999, BotCorp, a Canadian-owned,² U.S. corporation, filed an application

¹ The "L-band" is a general designation for frequencies from 1 to 2 GHz. In this *Order and Authorization*, however, the term "L-band" denotes only the 1545-1559 MHz and 1646.5-1660.5 MHz frequency band ("upper L-band") and the 1525-1530 MHz, 1530-1544 MHz, and 1626.5-1645.5 MHz frequency bands ("lower L-band"). The United States is the only country that distinguishes between the "upper" and "lower" L-band.

² BotCorp is organized under the laws of the state of New York. It is a wholly-owned by David Louis Bot and Roger Peter Bot, both of whom are Canadian nationals. See BotCorp application Exhibit B

requesting blanket authority to operate up to 25,000 full-duplex³ METs throughout the United States in frequency bands 1646.5-1660.5 MHz (transmit) and 1545-1559 MHz (receive), using the Canadian-licensed MSAT-1 satellite at 106.5° W.L. MSAT-1 is owned and operated by TMI Communications and Company, Limited Partnership (TMI), and the U.S.-licensed AMSC-1, which is owned and operated by Motient Services, Inc. (Motient).⁴ The METs will be used to provide two-way data service to land-based mobile platforms. According to BotCorp, a mobile terminal consists of receive and transmit antennas and a radio transceiver unit to which sensors may be attached. BotCorp adds that the terminals use low-cost omnidirectional antennas.⁵ Space System License, Inc. and Iridium LLC (collectively Motorola), Globalstar L.P. (Globalstar), and Motient, respectively filed petitions to deny BotCorp's application.

III. Discussion

3. In 1997, the United States signed the World Trade Organization (WTO) Agreement on Basic Telecommunication Services. In the WTO Agreement, the United States committed to open its satellite market to foreign satellite systems licensed by WTO-member countries to provide fixed and mobile satellite services (excluding Direct-to-Home Service, Direct Broadcast Satellite Service, and Digital Audio Radio Services). The Commission thereafter adopted the *DISCO II Order*, implementing a framework to examine requests by non-U.S. licensed satellite systems licensed by other WTO-members to serve the U.S. market.⁶ In making a public interest determination, the Commission stated in *DISCO II* that it would take into account factors such as competition in the United States, spectrum availability, eligibility requirements, technical requirements, and national security, law enforcement, foreign policy and trade issues.⁷

4. Each of the opposing parties contends that BotCorp has not demonstrated that its operations will be consistent with the *DISCO II* requirements. Motient and Globalstar are concerned about perceived adverse competitive effect that they say would result if BotCorp's application is granted. Motient contends that allowing BotCorp to use the TMI grant of the application would prevent Motient, the sole U.S. MSS L-band space station licensee, from gaining access to sufficient spectrum to operate a domestic MSS system. Globalstar contends that allowing BotCorp to use TMI's satellite would be inconsistent with the Commission's policies over non-U.S. licensed satellites because it would lead to unfair competitive advantage to non-U.S. MSS providers in the U.S. market and thus competitive harm to domestic carriers. Motient also contends that BotCorp's proposal does not meet the Commission's requirements for priority and preemptive access for aeronautical and maritime safety communications; and that BotCorp will unfairly benefit from enhanced pricing flexibility due to subsidies the Canadian government provides to TMI. Globalstar and Motorola each contends that BotCorp's application should be denied because it violates the Commission's "freeze" on accepting applications for spectrum

³ A full-duplex MET can receive a data message while transmitting one. Conversely, a half-duplex cannot receive and transmit data messages simultaneously. It must finish transmitting before it can receive an incoming message.

⁴ Formerly AMSC Subsidiary Corporation.

⁵ See BotCorp Application Exhibit E.

⁶ See *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Service in the United States*, Report and Order, 12 FCC Red 24094 (1997).

⁷ *Id.* at 24100.

coordinated in the lower L-band. Motorola also asserts that any blanket authority grant to BotCorp must ensure Motorola protection from interference to spectrum used by Iridium

5. We note that identical arguments made by the parties here concerning the Commission's L-band spectrum management policy, alleged failure to comply with technical requirements for priority and preemptive access applicable to MSS, issues related to alleged subsidization of TMI by the Canadian government, and potential out-of-band interference have been raised and have been addressed fully in other L-band proceedings. *See, e.g., SatCom Systems*, 14 FCC Rcd 20798 (1999), *aff'd sub nom. AMSC v. FCC*, 216 F.3d 1154 (D.C. Cir. 2000). We find no reason to depart from the conclusions reached in those decisions. Nor need we address the allegation that BotCorp violates the Commission's freeze on accepting applications to operate in the lower L-band. The blanket authorization that BotCorp seeks is for transmit frequencies ranging between 1646.5 and 1660 MHz and receive frequencies ranging between 1545 and 1559 MHz. Thus, BotCorp seeks to provide service only in the upper L-band, which is not affected by the freeze. Consequently, we shall confine our discussion to the remaining issues raised by the opponents.

6. Furthermore, our review of BotCorp's application indicates that it has met the technical requirements, including the approval of the National Telecommunications and Information Administration (NTIA),⁸ to operate the subject METs as it proposes. BotCorp's compliance notwithstanding, we shall impose certain conditions on BotCorp's operation of these METs to ensure its compliance with these requirements. For example, in the upper L-Band, mobile satellite service operators must comply with a footnote to the U.S. Table of Frequency Allocation and a provision in the ITU's Radio Regulations regarding priority and preemptive access for Aeronautical Mobile Satellite (Route) Service (AMS(R)S)⁹ operation in a portion of this band.¹⁰ Consistent with these requirements, BotCorp's operation in the bands 1545-1559 and 1646.5-1660.5 MHz is on a secondary basis to the U.S. AMS(R)S requirements of other U.S.-authorized MSS providers operating in these bands. In addition, the level of out-of band and spurious emissions from BotCorp's METs must be consistent with Section 25.202(f) of the Commission's Rules, 47 C.F.R. § 25.202(f), with the 1994 Memorandum of Understanding among the Commission, the Federal Aviation Administration, and NTIA to protect Global Navigation Satellite Systems (GNSS), and any applicable standards subsequently incorporated in the Commission's rules to protect GNSS.¹¹

⁸ See "Summary of L-band Emission Information for Coordination with NTIA," dated May 18, 2001.

⁹ AMS(R)S is a mobile satellite service using mobile terminals on-board aircraft. This service can be used to support domestic and international air traffic, including air traffic control. The (R) indicates that the spectrum is used for aeronautical communications related to the safety and regularity of flights primarily along national and international civil air routes.

¹⁰ Footnote US 308 of the U.S. Table of Frequency Allocations, 47 C.F.R. § 2.106, states: "In the frequency bands 1549.5-1558.5 MHz and 1651-1660 MHz, the Aeronautical-Mobile-Satellite(R) requirements that cannot be accommodated in the 1545-1549.5 MHz, 1558-1559 MHz, 1646.5-1651 MHz and 1660-1660.5 MHz bands shall have priority access with real-time capability for communications in the mobile satellite service. Systems not interoperable with the services shall operate on a secondary basis." S5.357A in the ITU's Radio Regulations has a similar priority and preemptive access requirement. *See also, SatCom Systems, Inc.*, 14 FCC Rcd 20798 at ¶¶ 47-50.

¹¹ *See SatCom Systems, Inc.*, 14 FCC Rcd 20789 at ¶¶ 51-53.

IV. Conclusion

7. We find that BotCorp has demonstrated that its operations will comport with the *DISCO II* requirements and that it is qualified to hold the blanket earth station authorizations requested. Consequently, we grant BotCorp's application, subject to the conditions set forth below.

V. Ordering Clauses

8. Accordingly, IT IS ORDERED that Application File No.SES-LIC-19990120-00124 IS GRANTED and BotCorp America IS AUTHORIZED to operate up to 25,000 mobile earth terminals through the U.S. licensed AMSC- space station and the Canadian licensed MSAT-1 space station to the extent indicated herein, in accordance with the technical specifications set forth in its application and its Radio Station Authorization, and consistent with the Commission's rules.

9. IT IS FURTHER ORDERED that in the absence of a continuing annual operator-to-operator coordination agreement, BotCorp America's operation in the 1545-1559 and 1646.5-1660.5 MHz band will be on a non-harmful interference basis. Consequently, in the absence of a coordination agreement, BotCorp America shall not cause harmful interference to any other lawfully operating satellite or radio facility and shall cease operations upon notification of such interference. Furthermore, BotCorp America must notify all other operators in these frequency bands that it will be operating on a non-harmful interference basis. BotCorp America must also notify its customers in the United States that its operations are on a non-harmful interference basis.

10. IT IS FURTHER ORDERED that BotCorp America must operate its mobile earth terminals in a full-duplex mode and have the following minimum set of capabilities to ensure compliance with US Footnote 308 to Section 2.106 of the Commission's rules, 47 C.F.R. § 2.106, and ITU Radio Regulations S5.357:

- a. All MET transmissions shall have a priority assigned to them that preserves the priority and preemptive access given to aeronautical distress and safety-related communications sharing the band;
- b. Each MET shall be assigned access to a unique technical identification number that will be transmitted upon any attempt to gain access to a system;
- c. After a MET has gained access to a system the mobile terminal shall be under control of a Land Earth Station and shall obtain all channel assignments from it;
- d. All METs that do not continuously monitor a separate signaling channel shall have provisions for signaling within the communications channel;
- e. Each MET shall automatically inhibit its transmissions if it is not correctly receiving a separate signaling channel or signaling within the communications channel from its associated Land Earth Station; and
- f. Each MET shall automatically inhibit its transmissions on any or all channels upon receiving a channel-shut-off command on a signaling or communications channel it is receiving from its associated Land Earth Station.

11. IT IS FURTHER ORDERED that, in accordance with US Footnote 308, the operation of BotCorp America's METs, in the bands 1545-1558.5 and 1646.5-1660 MHz, is on a secondary basis to U.S. AMS(R)S requirements of other U.S.-authorized MSS providers operating in the 1545-1559 and 1646.5-1660 MHz bands.

12. IT IS FURTHER ORDERED that BotCorp America. will be subject to any applicable out-of-band emission standards subsequently incorporated in the Commission's rules for protection of the Global Navigation Satellite Service.

13. IT IS FURTHER ORDERED that the Petition to Deny of Motient Services, Inc., Space System Licensee, Inc. and Iridium LLC, and Globalstar, L.P. ARE DENIED.

14. IT IS FURTHER ORDERED that this license shall not vest in the licensee any right to operate Earth stations or use the assigned frequencies beyond the term thereof or in any manner other than authorized herein, and neither the licensee nor the rights granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act.

15. IT IS FURTHER ORDERED that the license term for the mobile earth terminals that are authorized by the *Order and Authorization* be for ten years.

16. IT IS FURTHER ORDERED that BotCorp America be afforded thirty days to decline this authorization. Failure to respond within this period will constitute formal acceptance of the authorization.

FEDERAL COMMUNICATIONS COMMISSION

Thomas S. Tycz
Chief
Satellite and Radiocommunication Division